

June 8, 1956

Dear Mrs. Elliott:

Thank you for your note of the 4th.

The matter of 1633A is certainly of more sentimental (to me) than scientific interest. I worked on the "adaptations" of this strain, among others more than ten years ago, and I am afraid it would be quite a chore to dig all the details out of my notes. (Some of that work was published with Ryan, in PNAS 32:1163). I think the following is a fair statement:

I was specifically looking for reverse-mutation of  $pab^-$  and set up quite a number of long-term selections. 1633A proved to "adapt" on minimal medium in quite a few tests, but the ability to grow on minimal was rarely transmitted through the conidia. I did have one case of an apparent reversion and another where backcrosses of a single spore  $pab^+$  isolate gave  $pab^-$  progeny. This might have been due to mutational instability, incompetence, or a suppressor and I would not want to insist on which one. The point does not seem a vital one, and I would rather you did not make any definite attributions. Why don't you merely omit the "so far as is known" story altogether, and just say that you never saw anything that would lead you to suspect the marker? I am rather surprised myself that you never ran into the so-called "adaptations", whatever they are.

Yours sincerely,

Joshua Lederberg  
Professor of Genetics